

***Carex gynandra* - *Platanthera clavellata* - *Drosera rotundifolia* - *Carex ruthii* - *Carex atlantica* / *Sphagnum* spp. Herbaceous Vegetation**

COMMON NAME Mountain Fringed Sedge - Small Green Wood Orchid - Roundleaf Sundew - Ruth Sedge
- Prickly Bog Sedge / Peatmosses Herbaceous Vegetation
SYNONYM Blue Ridge High Elevation Seep (Sedge Type)
PHYSIOGNOMIC CLASS Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP Temperate or subpolar perennial forb vegetation (V.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (V.A.5.N)
FORMATION Saturated temperate perennial forb vegetation (V.A.5.N.m.)

ALLIANCE *Carex ruthii* – *Carex gynandra* Saturated Herbaceous Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Palustrine

RANGE

Globally

This community occurs at high elevations in the southern Blue Ridge of North Carolina and Tennessee and may range into Virginia.

Great Smoky Mountains National Park

This community was sampled from a single location on the Mount Le Conte quadrangle but is likely in other high elevation areas of the Park. It was not found, nor is it likely, on the Cade Cove quadrangle. It was sampled in the southeastern portion of the Mount Le Conte quadrangle, in the vicinity of Ice Water Springs, east of Mount Kephart.

ENVIRONMENTAL DESCRIPTION

Globally

This community occurs on seepage slopes and is scattered throughout the high elevations (> 5000 feet) of the southern Blue Ridge. These perennial seeps tend to be rocky and occur over gravelly muck or with some bedrock outcropping. Slopes are gentle to moderately steep. They are influenced by the high rainfall and low evaporation rates in these high mountain landscapes.

Great Smoky Mountains National Park

This community was sampled from a flat area around Ice Water Springs, at 5900 feet elevation. It is a relatively open, sunny seep with standing water and a mucky substrate.

MOST ABUNDANT SPECIES

Globally

Stratum

Herbaceous

Nonvascular

Species

Carex species (*Carex gynandra*, *Cares ruthii*, *Carex crinita*)

Sphagnum species

Great Smoky Mountains National Park

Stratum

Herbaceous

Nonvascular

Species

Chelone obliqua, *Carex ruthii*, *Ageratina altissima*

Sphagnum species

CHARACTERISTIC SPECIES

Globally

Carex gynandra, *Carex ruthii*, *Carex atlantica*, *Carex flexuosa*, *Glyceria striata*, *Glyceria melicaria*, *Hypericum graveolens*, *Hypericum mitchellianum*, *Hypericum mutilum*, *Chelone lyonii*, *Platanthera clavellata*, *Drosera rotundifolia*

Great Smoky Mountains National Park

Carex ruthii, *Carex gynandra*, *Sphagnum* spp., *Glyceria nubigena*, *Solidago glomerata*

VEGETATION DESCRIPTION

Globally

This non-alluvial wetland is generally graminoid-dominated but may have significant coverage by trees or shrubs, especially around the edges. Particularly small examples may be completely shaded by trees in the community and in the adjacent forests. Typically this community has well-developed *Sphagnum* mats. Characteristic species include *Carex gynandra*, *Carex ruthii*, *Carex atlantica*, *Carex flexuosa*, *Glyceria striata*, *Glyceria melicaria*, *Hypericum graveolens*, *Hypericum mitchellianum*, *Hypericum mutilum*, *Chelone lyonii*, *Platanthera clavellata*, and *Drosera rotundifolia*. Occurrences of this community are surrounded by or were formerly surrounded by forests dominated by *Abies fraseri* and *Picea rubens* or by the highest northern hardwood forests (forests dominated by *Fagus grandifolia*, *Betula alleghaniensis*, and *Aesculus flava*).

Great Smoky Mountains National Park

This community is a spring-associated seep dominated by patches of forbs, sedges, and peatmoss. The aspect dominants are *Ageratina altissima* var. *roanensis* and *Chelone obliqua*; however, *Carex ruthii*, *Viola* spp., *Sphagnum* spp., and *Carex gynandra* also have high coverage. Other species include *Aconitum uncinatum* ssp. *muticum*, *Agrostis perennans*, *Angelica triquinata*, *Aster acuminatus* var. *acuminatus*, *Cinna latifolia*, *Dennstaedtia punctilobula*, *Diervilla sessilifolia*, *Glyceria nubigena*, *Oxalis montana*, and *Solidago glomerata*.

OTHER NOTEWORTHY SPECIES

No information

CONSERVATION RANK G2

RANK JUSTIFICATION

This community occurs in a limited portion of high elevation areas of the southern Blue Ridge. Occurrences are small and embedded in forests or sometimes high elevation grassy balds or heath balds. Many examples are in protected areas. Those that are not are vulnerable to logging and alteration of hydrology.

DATABASE CODE Cegl007697

COMMENTS

Globally

This community is distinguished from other high elevation seeps in the Blue Ridge (*Impatiens (capensis, pallida) - Monarda didyma - Rudbeckia laciniata* var. *humilis* Herbaceous Vegetation (CEGL004293) and *Diphylleia cymosa - Saxifraga micranthidifolia - Laportea canadensis* Herbaceous Vegetation (CEGL004296)) by being graminoid-dominated and having *Sphagnum* present. Examples of this association generally lack *Rudbeckia laciniata*, *Laportea canadensis*, *Monarda didyma*, and *Diphylleia cymosa*. It is distinguished from southern Blue Ridge bog communities by floristic differences and by occurring on a pronounced slope at high elevations.

Great Smoky Mountains National Park

This community is surrounded by forests dominated by *Picea rubens*, *Betula alleghaniensis*, and *Abies fraseri*.

REFERENCES

Newell and Peet 1996, Schafale and Weakley 1990